

CLAIMS:

1. A disc storage unit comprising:
 - a case,
 - 5 a tray supported by the case and configured to support an array of discs in respective parallel substantially vertical planes across which respective coaxial axes of the discs pass substantially horizontally,
 - a disc-raising mechanism comprising a finger
 - 10 activatable to lift one of the discs from the tray within its respective plane to thereby render the disc non-coaxial with other discs that might be supported by the tray, and
 - an indexing mechanism configured to cause the disc-
 - 15 raising mechanism to raise others of said discs in a like manner.
2. The disc storage unit of Claim 1 wherein the disc-raising mechanism comprises a pivot bar to which there is
- 20 slidably mounted a carriage beam from which a plurality of said fingers extend.
3. The disc storage unit of Claim 2 wherein the fingers
- 25 are curved to substantially follow an arc of the periphery of the discs.
4. The disc storage unit of Claim 2 further comprising an electric motor for pivoting the pivot bar.

5. The disc storage unit of Claim 4 further comprising a gearbox that reduces output speed of the electric motor and drives the pivot bar.

5

6. The disc storage unit of Claim 5 wherein the gearbox is belt-driven by the motor.

7. The disc storage unit of Claim 5 wherein the gearbox
10 comprises an output gear having an eccentric pin to which a link is attached, and the pivot bar has extending from it a crank arm to which the link is attached.

8. The disc storage unit of Claim 7 wherein the indexing
15 mechanism comprises a shaft extending parallel to the pivot bar and driven by the output gear and having one or more indexing rings affixed thereto and extending thereabout, and a block interacting with the carriage beam and having a plurality of indexing pins extending
20 therefrom and with which the rings interact to transfer the block and thereby the carriage beam linearly along the pivot bar.

9. The disc storage unit of Claim 8 wherein the block is
25 mounted to slide upon a rod that extends parallel to the pivot bar.

10. The disc storage unit of Claim 1 further comprising a

disc positioner affixed to the case and comprising a plurality of slots through which individual discs pass.

11. The disc storage unit of Claim 1 further comprising a
5 cover attached hingedly to the case and covering any discs stored therein.

12. The disc storage unit of Claim 2 wherein the fingers
are spaced equally along the pivot bar to co-operate with
10 every n^{th} disc, where n is an integer greater than or equal to 2.

13. The disc storage unit of Claim 4 further comprising a
switch mechanism having two momentary switches, a slide
15 switch and two push buttons, one of the momentary switches activatable by one of the pushbuttons and the other momentary switch being activatable by the other
pushbutton, the slide switch being activatable by both
pushbuttons and wherein the switch mechanism controls the
20 electric motor.

14. The disc storage unit of Claim 13 further comprising
a pair of pivotable elbows, each elbow having one arm co-
operating with one of the pushbuttons and one of the
25 momentary switches and another arm co-operating with the slide switch.

15. The disc storage unit of Claim 8 further comprising

a cam mounted on the shaft and a limit switch interacting with the cam.

16. The disc storage unit of Claim 4 further comprising
5 a cover attached hingedly to the case and covering any
discs stored therein and a first safety switch associated
with the motor and closed upon closing the cover.

17. The disc storage unit of Claim 16 further comprising
10 a second safety switch in series with the first safety
switch and associated with the disc-raising mechanism and
closed when one of the discs is raised from the tray.